ABSTRACT

In a bio-separation system, incident radiation (e.g., from a laser or LED source) for detection of separated analytes is directed at the detection zone axially along the separation medium, instead of through the boundary walls of the detection zone. In one embodiment, incident radiation at one or more wavelengths is directed via at least one optic fiber that extends axially along the separation medium to the proximity of the detection zone. Emitted radiation from the detection zone passes through the boundary walls about the detection zone for off-column detection, and/or is directed axially along the separation medium for on-column detection. In another aspect of the present invention, the detection zone is located at a widened zone along the separation channel. In a further aspect of the present invention, the optical detection configuration may be scaled up and implemented in a multi-channel CE system that comprises multiple capillary separation channels.